



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2015-0926; Directorate Identifier 2014-NM-121-AD; Amendment 39-18263; AD 2015-18-05]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

**SUMMARY:** We are superseding Airworthiness Directive (AD) 97-07-14, for certain Airbus Model A320-111, -211, and -231 airplanes. AD 97-07-14 required modification of an area on the front spar of the wing center section by installing shims and new fasteners to reinforce pressure floor fittings. This new AD continues to require modifying the rib flange on the front spar of the wing center section by installing shims and new fasteners to reinforce pressure floor fittings; and requires repetitive high frequency eddy current inspections for cracking of the radius of the rib flanges and vertical stiffener at frame 36, a rototest inspection for cracking of the fastener holes of the rib flanges, repair if needed, and adding additional airplanes to the applicability. This AD was prompted by the need for repetitive inspections on

airplanes on which the modification of the rib flange on the front spar of the wing center section has been done. We are issuing this AD to prevent fatigue cracking on the rib flange area of the front spar of the wing center section, which can reduce the structural integrity of fuselage frame 36 and the wing center section.

**DATES:** This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain other publication listed in this AD as of May 12, 1997 (62 FR 16473, April 7, 1997).

**ADDRESSES:** You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2015-0926>; or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For service information identified in this AD, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For

information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-0926.

**FOR FURTHER INFORMATION CONTACT:** Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149.

**SUPPLEMENTARY INFORMATION:**

**Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997).

AD 97-07-14 applied to certain Airbus Model A320-111, -211, and -231 airplanes. The NPRM published in the Federal Register on April 24, 2015 (80 FR 22943).

Since we issued AD 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997), we have determined the need for repetitive inspections on airplanes on which Airbus Modification 20976 (modification of the rib flange on the front spar of the wing center section) was done in production, or was done using Airbus Service Bulletin A320-57-1013, dated April 12, 1989; or Airbus Service Bulletin A320-57-1013, Revision 1, dated September 29, 1992.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2014-0053, dated March 7, 2014 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition on certain

Airbus Model A320-211 and -231 airplanes. The MCAI states:

During full scale fatigue tests on the Airbus A320 test specimen, cracks were found in the rib flange on the front spar side perpendicular to vertical posts at frame (FR) 36. It was determined that similar cracks could develop on certain in-service aeroplanes.

This condition, if not detected and corrected, could affect the wing structural integrity.

To reduce the risk of crack initiation, two modifications for aeroplanes in production and one modification for in-service aeroplanes were developed by Airbus: Prior to [manufacturer serial number] MSN 0085, the adaptation modification (Mod) 20976 was applied in production, consisting in installing shims under the fasteners linking the rib flange, the lower corner, the front spar and its vertical stiffener; from MSN 0085 onwards, the serial Mod 20908 was applied in production, consisting in installing reinforced lower surface rib flanges at front spar level.

Airbus issued Service Bulletin (SB) A320-57-1013 for affected in-service aeroplanes, and [Directorate General for Civil Aviation] DGAC France issued AD [F-19]95-098-066 [dated May 24, 1995, which corresponds to FAA AD 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997), <http://ad.easa.europa.eu/ad/F-1995-098-066>] to require installation of shims under the fasteners linking the rib flange, the lower corner, the front spar and its vertical stiffener.

Following a recent analysis, Airbus identified the need for repetitive [HFEC and rototest] inspections for aeroplanes on which Airbus SB A320-57-1013 or production Mod 20976 has been embodied.

For the reason described above, this [EASA] AD retains the requirements of DGAC France AD [F-19]95-098-066, [dated May 24, 1995, which corresponds to FAA AD 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997), <http://ad.easa.europa.eu/ad/F-1995-098-066>], which is superseded, and requires repetitive [HFEC and rototest] inspections of the center wing lower ribs at FR 36 and, depending on findings, accomplishment of a repair.

After EASA issued PAD 14-013, it was discovered that additional work [removal of shims and fasteners on the rib flange on the front spar side and doing an HFEC inspection for cracking of the radius of the rib flanges and a rototest inspection for cracking of the fastener holes during each inspection] to be included in Revision 01 of Airbus SB A320-57-1175, is required to accomplish the inspections. This Final [EASA] AD has been amended accordingly.

Airplanes having MSNs 001, 009, and 015 were not included in the applicability of

AD 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997). EASA

AD 2014-0053, dated March 7, 2014, expanded the applicability to all airplanes having manufacturer serial numbers up to MSN 0084 inclusive. We included paragraph (h) of this AD to require the modification for the airplanes having MSNs 001, 009, and 015.

You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov/#!documentDetail;D=FAA-2015-0926-0002>.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (80 FR 22943, April 24, 2015) or on the determination of the cost to the public.

### **Conclusion**

We reviewed the available data and determined that air safety and the public interest require adopting this AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (80 FR 22943, April 24, 2015) for correcting the unsafe condition; and

- Do not add any additional burden upon the public than was already proposed in the NPRM (80 FR 22943, April 24, 2015).

### **Related Service Information under 1 CFR part 51**

Airbus has issued Service Bulletin A320-57-1175, Revision 01, including Appendix 01, dated May 28, 2014. The service information describes procedures for repetitive high frequency eddy current inspections for cracking of the radius of the rib flanges and vertical stiffener at frame 36, a rototest inspection for cracking of the fastener holes of the rib flanges, and repair. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this AD.

### **Explanation of “RC” Procedures and Tests in Service Information**

The FAA worked in conjunction with industry, under the Airworthiness Directive Implementation Aviation Rulemaking Committee (ARC), to enhance the AD system. One enhancement was a new process for annotating which procedures and tests in the service information are required for compliance with an AD. Differentiating these procedures and tests from other tasks in the service information is expected to improve an owner's/operator's understanding of crucial AD requirements and help provide consistent judgment in AD compliance. The procedures and tests identified as Required for Compliance (RC) in any service information have a direct effect on detecting, preventing, resolving, or eliminating an identified unsafe condition.

As specified in a NOTE under the Accomplishment Instructions of the specified service information, procedures and tests that are identified as RC in any

service information must be done to comply with the AD. However, procedures and tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an alternative method of compliance (AMOC), provided the procedures and tests identified as RC can be done and the airplane can be put back in a serviceable condition. Any substitutions or changes to procedures or tests identified as RC will require approval of an AMOC.

### **Costs of Compliance**

We estimate that this AD affects 11 airplanes of U.S. registry.

The actions required by AD 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997), and retained in this AD take about 13 work-hours per product, at an average labor rate of \$85 per work-hour. Required parts cost about \$576 per product. Based on these figures, the estimated cost of the actions that were required by AD 97-07-14 is \$1,681 per product.

We also estimate that it will take about 45 work-hours per product to comply with the new basic requirements of this AD. The average labor rate is \$85 per work-hour. Required parts will cost about \$1,600 per product. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$59,675, or \$5,425 per product.

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA



Administrator. “Subtitle VII: Aviation Programs,” describes in more detail the scope of the Agency’s authority.

We are issuing this rulemaking under the authority described in “Subtitle VII, Part A, Subpart III, Section 44701: General requirements.” Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov/#!docketDetail;D=FAA-2015-0926>; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997), and adding the following new AD:

**2015-18-05 Airbus:** Amendment 39-18263. Docket No. FAA-2015-0926; Directorate Identifier 2014-NM-121-AD.

**(a) Effective Date**

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

This AD replaces AD 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997).

**(c) Applicability**

This AD applies to Airbus Model A320-211 and -231 airplanes, certificated in any category, all manufacturer serial numbers (MSN) up to MSN 0084 inclusive.

**(d) Subject**

Air Transport Association (ATA) of America Code 57, Wings.

**(e) Reason**

This AD was prompted by the determination that repetitive inspections are needed on airplanes on which the modification of the rib flange on the front spar of the wing center section has been done. We are issuing this AD to prevent fatigue cracking on the rib flange area of the front spar of the wing center section, which can reduce the structural integrity of fuselage frame 36 and the wing center section.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Retained Modification**

This paragraph restates the requirements of paragraph (a) of AD 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997). For airplanes with manufacturer

serial numbers (MSN) 005 through 008 inclusive, MSNs 010 through 014 inclusive, and MSNs 016 through 042 inclusive: Prior to the accumulation of 16,000 total landings, or within 3 months after May 12, 1997 (the effective date of AD 97-07-14), whichever occurs later, modify the rib flange on the front spar of the wing center section by installing shims and new fasteners to reinforce pressure floor fittings, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1013, Revision 1, dated September 29, 1992.

**(h) New Requirement of this AD: Modification for Airplanes with MSNs 001, 009, and 015**

Prior to the accumulation of 16,000 total landings since first flight, or within 30 days after the effective date of this AD, whichever occurs later, modify the rib flange on the front spar of the wing center section by installing shims and new fasteners to reinforce pressure floor fittings, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1013, Revision 1, dated September 29, 1992.

**(i) New Requirement of this AD: Repetitive Inspections**

Within the applicable compliance times specified in paragraphs (i)(1) and (i)(2) of this AD, do a high frequency eddy current (HFEC) inspection for cracking of the radius of the rib flanges and vertical stiffener at frame 36, and do a rototest inspection for cracking of the fastener holes of the rib flanges and vertical stiffener, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1175, Revision 01, including Appendix 01, dated May 28, 2014. During each inspection, remove the shims and fasteners on the rib flange on the front spar side and do an HFEC inspection for cracking of the radius of the rib flanges and a rototest inspection for cracking of the

fastener holes. If no cracking is found, oversize the holes of the rib flange and the holes of the shims, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1175, Revision 01, including Appendix 01, dated May 28, 2014.

Repeat the inspections thereafter at intervals not to exceed 32,500 flight cycles or 65,000 flight hours, whichever occurs first.

(1) For airplanes having Airbus Modification 20976 embodied: At the later of the times specified in paragraphs (i)(1)(i) or (i)(1)(ii) of this AD.

(i) Before exceeding 47,800 flight cycles or 95,600 flight hours, whichever occurs first, since the airplane's first flight.

(ii) Within 850 flight cycles or 1,700 flight hours, whichever occurs first, after the effective date of this AD.

(2) For airplanes on which the modification of the front spar of the wing center section was accomplished using Airbus Service Bulletin A320-57-1013, Revision 1, dated September 29, 1992: At the later of the times specified in paragraphs (i)(2)(i) or (i)(2)(ii) of this AD.

(i) Before exceeding 10,700 flight cycles or 21,500 flight hours, whichever occurs first, after the modification of the rib flange on the front spar of the wing center section was done using Airbus Service Bulletin A320-57-1013, Revision 1, dated September 29, 1992.

(ii) Within 850 flight cycles or 1,700 flight hours, whichever occurs first, after the effective date of this AD.

**(j) Repair**

If, during any inspection required by paragraph (i) of this AD, any cracking is found, before further flight, repair using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA).

**(k) Credit for Previous Actions**

This paragraph restates the requirements of Note 2 of paragraph (g) of AD 97-07-14, Amendment 39-9988 (62 FR 16473, April 7, 1997): This paragraph provides credit for the modification of the rib flange required by paragraph (g) of this AD, if those actions were performed before May 12, 1997 (the effective date of AD 97-07-14), using Airbus Service Bulletin A320-57-1013, dated April 12, 1989, which is not incorporated by reference in this AD.

**(l) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane

Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office. The AMOC approval letter must specifically reference this AD.

**(2) Contacting the Manufacturer:** As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Branch, ANM-116, Transport Airplane Directorate, FAA; or EASA; or Airbus's EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

**(3) Required for Compliance (RC):** Except as required by paragraph (j) of this AD, if the service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures and tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in a serviceable condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

**(m) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2014-0053, dated March 7, 2014, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-0926.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (n)(5) and (n)(6) of this AD.

**(n) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(3) The following service information was approved for IBR on [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(i) Airbus Service Bulletin A320-57-1175, Revision 01, including Appendix 01, dated May 28, 2014.

(ii) Reserved.

(4) The following service information was approved for IBR on May 12, 1997 (62 FR 16473, April 7, 1997).

(i) Airbus Service Bulletin A320-57-1013, Revision 1, dated September 29, 1992.



Note 1 to paragraph (n)(4)(i): Airbus Service Bulletin A320-57-1013, Revision 1, dated September 29, 1992, contains the following list of effective pages: pages 1 through 3 show revision level 1, dated September 29, 1992; pages 4 through 11 are from the original issue, dated April 12, 1989.

(ii) Reserved.

(5) For service information identified in this AD, contact Airbus, Airworthiness Office – EIAS, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet <http://www.airbus.com>.

(6) You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(7) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on September 2, 2015.

Jeffrey E. Duven,  
Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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